



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

MM91/0717

FORMFACTOR, INC.  
LEGAL DEPARTMENT  
5666 LA RIBERA STREET  
LIVERMORE CA 94550

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/189,761	11/10/98	045	CUNEO, K	2841 07/17/01
First Named Applicant	ELDRIDGE,	35 USC 154(b) term ext. =		

TITLE OF INVENTION CONTACT STRUCTURES WITH BLADES HAVING A WIPING MOTION

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 P71-US	174-260.000	131	UTILITY	NO	\$1240.00	10/17/01

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

PATENT AND TRADEMARK OFFICE COPY





**UNITED STATES DEPARTMENT OF COMMERCE**  
**United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

LT

9/189761 APPLICATION NUMBER	11/10/98 FILING DATE	ELDRIDGE FIRST NAMED APPLICANT	B F/1-US ATTORNEY DOCKET NO.
--------------------------------	-------------------------	-----------------------------------	---------------------------------

FORMFACTOR, INC.  
LEGAL DEPARTMENT  
5666 LA RIBERA STREET  
LIVERMORE CA 94550

MM91/0717

EXAMINER CUNEO, K
----------------------

ART UNIT 2841	PAPER NUMBER 14
------------------	--------------------

DATE MAILED:

07/17/01

This is a communication from the examiner in charge of this application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

**NOTICE OF ALLOWABILITY**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

☒ This communication is responsive to amendment of 4/4/01

☒ The allowed claim(s) is/are 1-36, 46-54

☐ The drawings filed on \_\_\_\_\_ are acceptable as formal drawings.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE FOR SUBMITTING NEW FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION.** This three-month period for complying with the REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL is extendable under 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 7

☐ including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.

☒ including changes required by the attached Examiner's Amendment/Comment, or in the Office action of Paper No. \_\_\_\_\_

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this notice should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

**Attachment(s)**

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s): \_\_\_\_\_

☐ Notice of Draftperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☐ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for the Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance



Serial Number: 09/189761  
Art Unit: 2841

2

## EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Merkadeau on 7/13/01.

2. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: see the attached marked-up figures. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Applicant has filed a cover letter on 6/4/01 indicating submission of formal drawings. No drawings, however, are attached to the letter. Nevertheless, drawing corrections attached to the amendment of 6/4/01 **have** been received. The drawing corrections submitted 6/4/01 are not approved. Therefore, applicant must submit new formal drawings including changes in the drawing corrections attached to this examiner's amendment.

3. In the title, please delete the title and insert therefore --Contact Structures with Blades Having a Wiping Motion--.



*Status of Claims*

4. The amendment of 6/4/01 indicates that claims 1-45 are pending in the application. Further, an amendment to claim 37 has been submitted. Claims 37-45 were canceled by applicant in paper #4 (the first reply to the restriction requirement received 7/17/00). Therefore, claims 37-45 submitted with the amendment of 6/4/01 have been renumbered as claims 46-54.

As the independent claims are allowable, the nonelected claims have been rejoined with the elected claims and all of claims 1-36 and 46-54 are hereby allowed.

*Reasons for Allowance*

5. All of the claims contain the limitation that the blade is parallel to the wiping motion of the contact or that it is at a 45 degree angle thereto. The prior art does not teach this feature. Roberts (US 4295184) shows contacts with blade-like ends which provide a wiping motion upon contact with the mating terminal. But, the blade of Roberts is perpendicular to this direction. Wark et al, (US 5929521) shows blades (510), but the contact is not capable of providing a wiping motion. Smith (US 6008982) show a common type of contacts (36) which have blade-like tips (38). But, the intended method of operation of these contacts is to insert these contacts into or against the mating terminal. Therefore, these types of contacts do not provide a horizontal wiping motion so that the blade can be parallel to this direction.



Serial Number: 09/189761  
Art Unit: 2841

4

*Closing*

6. Any inquiries related to the examination of this application should be directed to Ex. K. Cuneo at (703) 308-1233 or her supervisor Ex. J Gaffin at (703) 308-3301. Inquiries of a general nature should be directed to the receptionist of Group 2800 at (703) 308-0956. The fax numbers for Group 2800 are (703) 305-7722 and 7724.



K. Cuneo  
Patent Examiner, Group 2841  
July 15, 2001